



Site Evaluation

60 % Reference Yield Verification

For many years in Germany the Erneuerbare Energien Gesetz (EEG/Renewable Energy Sources Act) is successfully regulating the feed-in of power generated by renewable energy sources and its compensation.

The currently effective version of the act, as amended on 21 July 2004, introduced a new regulation of power generated by wind energy and the term Reference Yield. The reference yield is: the amount of energy for each WES type, including the respective hub height, that this type would produce during five years of operation when erected at a reference site, calculated on the basis of a measured performance curve.

Benefit to the Customer

Every operator of a WES or a wind park needs this 60 % reference yield verification in order to oblige the network operator to purchase the generated power.

Notwithstanding § 5 subsection 1 EEG, network operators are not obliged to compensate power from systems that cannot verify before start-up that they can achieve at least 60 per cent of the reference yield at the planned site. The system operators must supply verification to the network operator by submitting an expert report according to the provisions of the appendix to the Act, prepared by an expert commissioned together with the network operator. If the network operator does not agree within four weeks from the system operator's request, the Umweltbundesamt (German Federal Environment Agency) will appoint the expert after consultation with the Fördergesellschaft Windenergie e.V. (FGW/Federation of German Wind Power). System and network operator will each pay 50% of the costs of the expert report.

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Implementation

Measurements of performance curve characteristics according to no. 5 and calculations of reference yields of system types at reference sites according to no. 2 as well as determinations of achievable energy yields at planned sites according to no. 6 can legitimately be carried out by institutions accredited by an officially recognised accreditation body or one evaluated by official bodies, according to the technical directive "Allgemeine Anforderungen an die Kompetenz von Prüf- und Kalibrierlaboratorien" (General Requirements for the competence of testing and calibration laboratories) (DIN EN ISO/IEC 17025, version: April 2000).

In order to perform the 60 % reference yield verification, the energy yield with free incident flow of each WES at the site is determined to compare it with a reference yield (according to §10 EEG) at a set site (imaginary with idealised conditions).

Our Competence

Co-operation in the Fachausschuss Windpotential (Technical Committee for Wind Potential) of the Fördergesellschaft Windenergie e.V. (Federation of German Wind Power)

Recognition by the Federation of German Wind Power for the determination of the reference energy yield and performance of the 60 % reference yield verification.

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